

CLAIMS

1. A coated article including a multi-layer coating supported by a glass substrate, the multi-layer coating comprising, from the glass substrate outwardly:
 - a layer comprising silicon nitride located directly on and contacting the glass substrate;
 - a layer comprising zinc oxide located directly on and contacting the layer comprising silicon nitride;
 - a layer comprising silver located over and contacting the layer comprising zinc oxide;
 - a dielectric layer comprising a metal oxide;
 - another layer comprising silver; and
 - another dielectric layer.
2. The coated article of claim 1, wherein the coated article is heat treated and has a ratio T_{vis}/R_s of at least 25 after heat treatment (where T_{vis} is visible transmission (%) and R_s is sheet resistance of the coating in units of ohms/square) and a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 8 due to the heat treatment.
3. The coated article of claim 2, wherein the coated article has a ratio T_{vis}/R_s of at least 30 after heat treatment.
4. The coated article of claim 2, wherein the coated article has a ratio T_{vis}/R_s of at least 32 after heat treatment.

5. The coated article of claim 2, wherein the coated article has a ratio T_{vis}/R_s of at least 34 after heat treatment.
6. The coated article of claim 1, wherein the layer comprising silicon nitride is Si-rich and has an index of refraction "n" of at least 2.10.
7. The coated article of claim 1, wherein the layer comprising silicon nitride is Si-rich and has an index of refraction "n" of from 2.15 to 2.25.
8. The coated article of claim 1, wherein the coated article comprises a laminated vehicle windshield, and the layer comprising silicon nitride is oxidized so as to form silicon oxynitride and has an index of refraction "n" of from 1.85 to 2.0.
9. The coated article of claim 1, wherein the layer comprising silicon nitride has a thickness of from 100 to 200 Å.
10. The coated article of claim 1, wherein the coated article has a sheet resistance (R_s) of less than or equal to 4.0.
11. The coated article of claim 1, wherein the coated article is heat treated and has a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 5 due to the heat treatment.

12. The coated article of claim 11, wherein the coated article has a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 4 due to the heat treatment.

13. The coated article of claim 11, wherein the coated article has a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 3 due to the heat treatment.

14. The coated article of claim 11, wherein the coated article has a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 2.5 due to the heat treatment.

15. The coated article of claim 1, wherein said layer comprising silicon nitride is Si-rich and comprises Si_xN_y , where x/y is from 0.8 to 1.0.

16. The coated article of claim 1, wherein the coated article is a laminated vehicle windshield and is heat treated.

17. The coated article of claim 1, wherein at least one of the layer comprising silicon nitride and the layer comprising zinc oxide further includes aluminum or other metal(s).

18. The coated article of claim 1, wherein the coated article includes the following layers from the glass substrate outwardly:

the layer comprising silicon nitride contacting the glass substrate;

the layer comprising zinc oxide located directly on and contacting the layer comprising silicon nitride;

the layer comprising silver located over and contacting the layer comprising zinc oxide;

a layer comprising at least one metal oxide;

a dielectric layer which comprises tin oxide;

a dielectric layer comprising silicon nitride;

a layer comprising zinc oxide;

another layer comprising silver;

a dielectric layer comprising a metal oxide; and

another dielectric layer comprising silicon nitride.

19. The coated article according to claim 1, wherein the coated article comprises a laminated vehicle windshield and has a transmissive haze value of no greater than 0.4.

20. The coated article according to claim 1, wherein the coated article comprises a laminated vehicle windshield and has a transmissive haze value of no greater than 0.35, and a total solar (TS) value of no greater than 46.

21. The coated article according to claim 1, wherein the coated article is a laminated vehicle windshield and has a total solar (TS) value of no greater than 44.

22. The coated article of claim 1, characterized in that when the coated article is exposed to about 650 degrees C of heat treatment for 12 minutes the coated article retains at least 98% of its pre-heat-treatment visible transmission.

23. A coated article including a multi-layer coating supported by a glass substrate, the multi-layer coating comprising, from the glass substrate outwardly:

a layer comprising silicon nitride located directly on and contacting the glass substrate;

a layer comprising zinc oxide;

a layer comprising silver located over and contacting the layer comprising zinc oxide; and

at least one dielectric layer.

24. The coated article of claim 23, wherein the coated article is heat treated and has a ratio T_{vis}/R_s of at least 25 after heat treatment (where T_{vis} is visible transmission (%) and R_s is sheet resistance of the coating in units of ohms/square) and a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 8 due to the heat treatment.

25. The coated article of claim 24, wherein the coated article has a ratio T_{vis}/R_s of at least 30 after heat treatment.

26. The coated article of claim 24, wherein the coated article has a ratio T_{vis}/R_s of at least 32 after heat treatment.

27. The coated article of claim 24, wherein the coated article has a ratio T_{vis}/R_s of at least 34 after heat treatment.

28. The coated article of claim 23, wherein the layer comprising silicon nitride is Si-rich and has an index of refraction "n" of at least 2.10.

29. The coated article of claim 23, wherein the layer comprising silicon nitride is Si-rich and has an index of refraction "n" of from 2.15 to 2.25.

30. The coated article of claim 23, wherein the coated article comprises a laminated vehicle windshield and has been heat treated, and the layer comprising silicon nitride is oxidized so as to form silicon oxynitride and has an index of refraction "n" of from 1.85 to 2.0, and wherein the silicon oxynitride may or may not be Si-rich with respect to nitrogen.

31. The coated article of claim 23, wherein the layer comprising silicon nitride has a thickness of from 100 to 200 Å.

32. The coated article of claim 23, wherein the coated article has a sheet resistance (R_s) of less than or equal to 4.0.

33. The coated article of claim 23, wherein the coated article is heat treated and has a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 5 due to the heat treatment.

34. The coated article of claim 23, wherein said layer comprising silicon nitride is Si-rich and comprises Si_xN_y , where x/y is from 0.8 to 1.0, and may optionally be partially oxidized.

35. The coated article of claim 23, wherein at least one of the layer comprising silicon nitride and the layer comprising zinc oxide further includes aluminum or other metal(s).

36. The coated article according to claim 23, wherein the coated article comprises a laminated vehicle windshield and has a transmissive haze value of no greater than 0.35, and a total solar (TS) value of no greater than 46.

37. The coated article according to claim 23, wherein the coated article is a laminated vehicle windshield and has a total solar (TS) value of no greater than 44.

38. The coated article of claim 23, characterized in that when the coated article is exposed to about 650 degrees C of heat treatment for 12 minutes the coated article retains at least 98% of its pre-heat-treatment visible transmission.

39. A heat treatable coated article including a multi-layer coating supported by a glass substrate, the multi-layer coating comprising, from the glass substrate outwardly:

a layer comprising silicon nitride located directly on and contacting the glass substrate;

a layer comprising at least one metal oxide;
a layer comprising silver located over and contacting the layer comprising the
at least one metal oxide;
at least one dielectric layer; and
when the coated article is exposed to about 650 degrees C of heat treatment for
12 minutes as a reference, the coated article retains at least 98% of its pre-heat-
treatment visible transmission.

40. The coated article of claim 39, wherein the coated article is heat treated
and has a ratio T_{vis}/R_s of at least 25 after heat treatment (where T_{vis} is visible
transmission (%) and R_s is sheet resistance of the coating in units of ohms/square) and
a ΔE^* value (glass side reflective and/or transmissive) of less than or equal to about 8
due to the heat treatment.

41. The coated article of claim 40, wherein the coated article has a ratio
 T_{vis}/R_s of at least 30 after heat treatment.

42. The coated article of claim 39, wherein the coated article has a ratio
 T_{vis}/R_s of at least 32 after heat treatment.

43. The coated article of claim 39, wherein the layer comprising silicon
nitride is Si-rich and has an index of refraction "n" of from 2.15 to 2.25.

44. The coated article of claim 39, wherein the coated article is a laminated vehicle windshield or a monolithic window component.